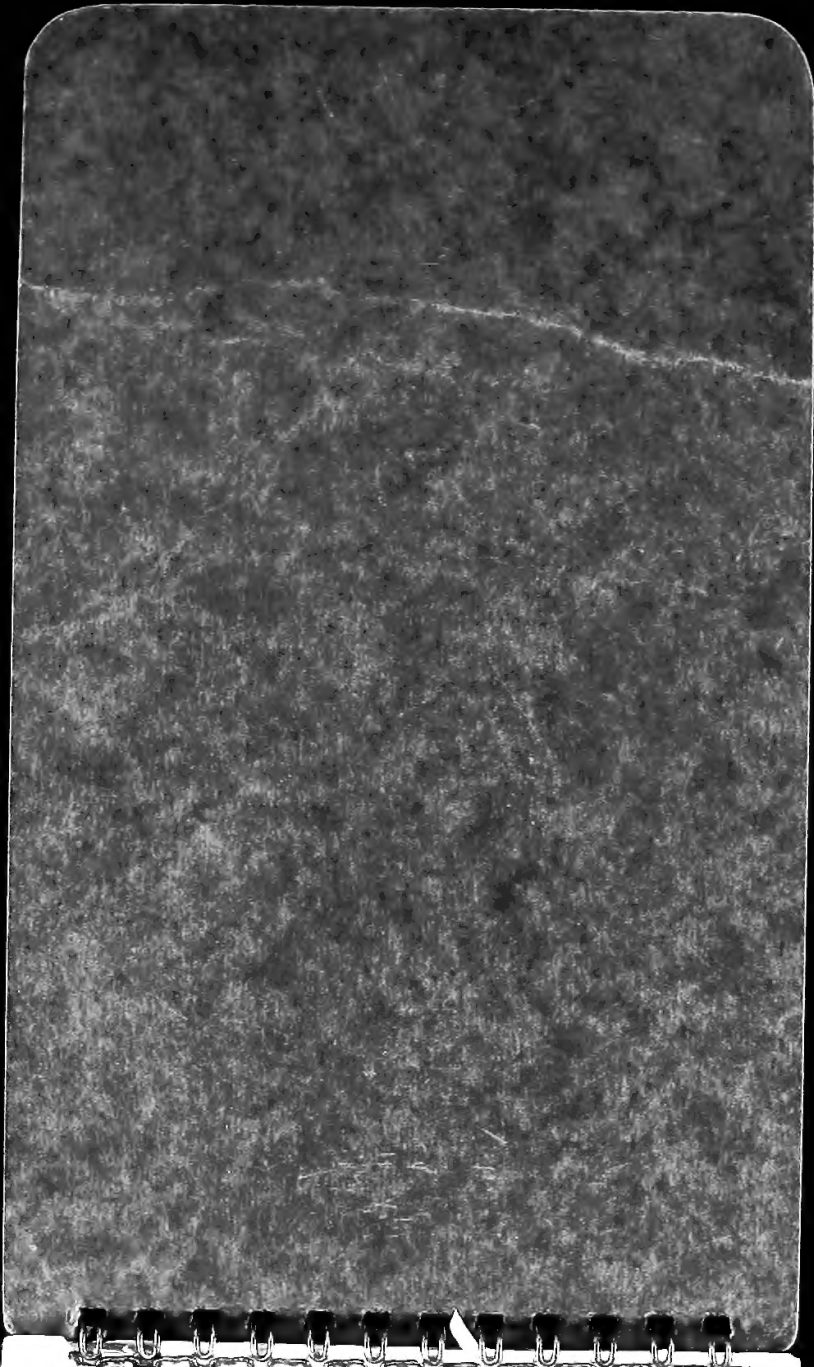


8937 - 9004



\$ 5.00 Reward  
for return to

Arthur Cronquist  
New York Botanical Garden  
New York 58, N.Y.

Scientific data, of no  
commercial value.

U.571

6937 - May 1, 1961

Sandy soil among scattered  
pinons and junipers, at  
low summit along highway  
13 miles south~~west~~ of  
Moab, San Juan Co., Utah  
Twp. 27 S., R. 23 E., S. 30.  
Elevation 5600 feet

*Flammula lanunda*

*Gilia sinuata* Dougl., sens. lat.  
(the *G. inconspicua* phase)

*Gilia* aff. *sinuata* ①

8938 - May 1, 1961

Same place as 8937. Corolla  
pink-purple, the banner  
with a pale spot.

*Astragalus thompsonae* Wats.

det. R. C. Barneby

*Astragalus s. tylosacrus*

(2)



8939 - May 1, 1961

Along northwest-facing  
sandstone ledges in  
open pinon-juniper wood-  
land at low summit  
along highway 13,  
miles ~~southeast~~ of Mabel,  
San Juan Co., Utah. Twp. 27S,  
R. 23E, S. 30. Elevation 5600 feet

*Flammularia*.

*Arabis selbyi* Rydb.

88 - Monte

54.2 - lat. 37°

47.0 km. W.

9443

*Arabis flavescens*

(16) ✓

8946-May 2, 1961

With sagebrush and scattered  
junipers in sandstone country  
about Kane Springs, 15 miles  
south of Moab, San Juan Co.,  
Utah. Twp 28S, R. 22E, S1.

Elevation 5100 feet. Strongly  
armed shrubs about 2 m. tall.

Flowers bright yellow,  
very fragrant, attracting bees.

*Berberis fremontii* Torr.

*Berberis* ④

8941. May 2, 1961 Open  
pinon-juniper woodland  
along roadside below the  
southeast base of the Abajo  
Mts., 8 miles north of  
Blanding, San Juan Co., Utah.  
Twp. 35 S., R. 23 E., S. 20.  
Elevation about 6900 feet.  
Flowers lavender to nearly  
white.

*Phlox hoodii* Rich.

35.4

27.2 - *Phlox*

(7)





8942 - May 2, 1961. Weed in campground  
under cottonwoods at mouth of  
Arch Canyon, where it joins  
Comb Wash, 18 miles southwest  
of Blanding, San Juan Co., Utah.  
Twp. 37S., R. 20E., S. 25. Elevation  
5000 feet. Leaves glaucous. Sepals  
purplish in bud, becoming  
greenish-white. Petals light  
yellow.

*Streptanthella longirostris*  
(Wats.) Rydb.

*Cucifer*

(17) ✓

8943 - May 3, 1961. Sandy  
sagebrush flats at mouth  
of Arch Canyon, where it  
joins Comb Wash, 18 miles  
southwest of Blanding, San  
Juan Co., Utah. Twp. 37S.,  
R. 20E., S. 25. Elevation  
5000 feet. Flowers white

*Oenothera albicaulis* Pursh

*Oenothera* (35) ✓

8944 - May 3, 1961 - Sandy  
sagebrush flat at edge of  
cottonwood grove at mouth  
of Arch Canyon, where it joins  
Comb Wash, 18 miles southwest  
of Blanding, San Juan Co., Utah.  
Twp. 37 S., R. 20 E., S. 25. Eleva-  
tion 5000 feet.

*Festuca octoflora* Walt.

Vulpia

35



8945. May 3, 1961 With  
scattered junipers on  
open, rocky sandstone slope  
overlooking Comb Wash,  
just below the mouth of  
Arch Canyon, 18 miles  
southwest of Blanding,  
San Juan Co., Utah. Twp. 37S.,  
R. 20E., S. 25. Elevation  
about 5100 feet. Flowers  
lavender to white.

*Gilia sinuata* Dougl., sens. lat.  
(the *G. inconspicua* phase)

*Gilia* aff. *sinuata*

(35) ✓

8946 - May 3, 1961 Sandy  
soil under cottonwoods at  
mouth of Arch Canyon, where  
it joins Comb Wash, 18 miles  
southwest of Blanding, San  
Juan Co., Utah. Twp. 37 S.,  
R. 20 E., S. 25. Elevation about  
5000 feet. Corolla lavender to  
white. Growing with #8947,  
*G. sinuata* sens. strict., but apparently  
distinct.

*Gilia sinuata* Dougl., sens. lat.  
(the *G. inconspicua* phase)

some as 8945?

(4)



8947 - May 3, 1961. Same  
place as 8946. Corolla lavender.  
Herbage glaucous below the  
inflorescence. Growing with  
#8946, ~~but~~, but  
apparently distinct.

*Gilia sinuata* Dougl.  
sens. strict.

the "*G. inconspicua*" phase

*Gilia* (30) ✓

8948. May 3, 1961. Same  
place as 8945.

Petals purplish. Sepals  
purple. tipped above a pale  
yellow. green base. Herbage  
glaucous.

*Streptanthus cordatus*  
Nutt.

*Streptanthus* (7)



8949 - May 3, 1961.

Same place as 8945. Corolla  
white, with a prominent  
yellow eye, the lobes reflexed,  
the fornicies large and erect.

*Cryptantha fulvocanescens*  
(Gray) Pays.

*Cryptantha* (4)



8950 - May 3, 1961.

Gravelly soil of wash

entering Comb Wash from  
Arch Canyon, 18 miles  
southwest of Blanding,  
San Juan Co., Utah.

7 mi. 375, R. 20 E., S. 25,

Elevation 5000 feet.

Flowers pink-purple, the  
banner with a pale spot.

*Astragalus thompsonae* Wats.

Det. R. C. Barney

51

*Astragalus* 8. 1. 1911

8951 May 3, 1961

Lam. plac. as 8950

Flowers pink-purple, the  
banner with a pale spot

*Astragalus* <sup>*amphioxys* Gray</sup>  
~~*amphioxys* Gray~~

var. *vespertinus* (Sheld.) Jones

det. R. C. Barneby

*Astragalus* (2)  
ex herb.

8952 - May 3, 1961

Same place as 8950.

Flowers pink-purple, the  
banner with a pale spot.

*Astragalus monumentalis*  
Barnaby

*Astragalus* ① - small ✓  
large

8953 - May 3, 1961.  
Sandy soil along Comb  
Wash at the outlet of Arch  
Canyon, 18 miles southwest  
of Blanding, San Juan Co., N.M.  
Twp. 37 S., R. 20 E., S. 25.

Elevation about 5000 feet.  
Flowers purplish, the  
corolla with a pale spot

*Astragalus ceramicus* Sheld.

*Astragalus* (1) - 2/1 - ✓

8954 - May 3, 1961.

Same place as 8950.

Flowers yellow

*Physaria australis* (Payson) Wats.

*Physaria* (2)

8955 - May 3, 1961

With scattered junipers on  
reddish sandstone slopes at  
the foot of Comb Ridge, 18 miles  
southwest of Blanding, San Juan  
Co., Utah. Twp. 37S, R. 21E,  
S. 30. Elevation 5100 feet.

Herbage glaucous. Flowers  
bright red, diverging from  
spectrum red in the direction  
of carmine. ~~transmission~~.

*Penstemon utahensis* ~~Eastw.~~  
Eastw.

*Penstemon* (21) ✓

8956 - May 3, 1961. Same  
place as 8955. Flowers bright  
yellow.

*Cryptantha flava* (A. Nels.)  
Payson

*Oreocarya*

(5)



8957 - May, 4, 1961. Ledges along  
sandstone cliffs at the  
mouth of Arch Canyon, where  
it enters Comb Wash, 18 miles  
southwest of Blanding,  
San Juan Co., Utah. Twp.  
37 S., R. 20 E., S. 25. Elevation  
about 5000 feet. Plants now  
mostly fruiting. Petals  
small, notched at the tips,  
white inside, brownish-purple  
outside.

*Silene antirrhina* L.

*Silene* (1) - *serotina* L.



8958. May 3, 1961. Same place  
as 8955. Plants suffrutescent  
below. Petals pale lavender,  
the flowers rather showy.

*Arabis pulchra* Jones  
var. *pallens* Jones

*Arabis* (3)

8451 May 5, 1952. Gravelly  
soil in Arch Canyon a little  
above where it opens into Comb  
Wash, 18 miles southwest of Blanding  
San Juan Co, Utah. Twp 37S., R.  
20E., S. 25. Elevation 5000 feet.  
Corolla dull whitish, only very  
faintly and obscurely marked.  
Herbage slightly glaucous

*Penstemon pachyphyllus* Gray,  
sens. lat.

whole *Penstemon* (2) ✓

8960 - May 5, 1961 - Gravelly  
or rocky soil of side slopes  
and canyon bottom in Arch  
Canyon, a little above where  
it opens into Comb Wash, 18  
miles southwest of Blanding,  
San Juan Co., Utah. Twp.  
37S., R. 28E., S. 25. Elevation  
5000 feet. Stems several or  
solitary from a woody caudex.  
Leaves strongly crinkled at the  
margins. Flowers secund,  
declined, the corolla scarlet,  
very narrow.

*Penstemon eatoni* Gray  
var. *undosus* Jones

red Penstemon

(4)



5961 - May 5, 1961 Sandy  
soil in canyon bottom,  
Arch Canyon, a little above  
where it opens into Comb Wash,  
18 miles southwest of Blanding,  
San Juan Co., Utah. Twp. 37S.,  
R. 20E., S. 25. Elevation 5000 feet.  
Flowers white, turning pinkish  
in wilting.

*Oenothera pallida* Lindl.

*Oenothera*

(4)



8962 - May 5, 1961. Same  
place as 8961. Flowers  
blue-purple. Pods mostly  
still immature, becoming  
strongly inflated and  
mottled at maturity.

*Astragalus ceramius* Sheld.

det. R. C. Barneby

as in (3)

8963 May 5, 1961. Rocky  
slopes below the cliffs in  
Arch Canyon, a little above  
where it opens into South Wash,  
18 miles southwest of  
Blanding, San Juan Co., Utah.  
Twp 37S., R. 20E., S. 25.  
Elevation 5000 feet. Plants  
growing in rather small  
tufts.

*Aristida glauca* (Nees)  
Walp.

*Aristida* 18) ✓

8964 - May 5, 1961.

Sandy and gravelly slopes and  
canyon bottom in Arch Canyon,  
- otherwise as 8963 -  
Perianth pure white.

*Abronia elliptica* A. Nels.

*Abronia*

(12)



8965 - May 5, 1961.  
Sandy soil in brush - open  
- no comment as 8965,  
Rays pinkish.

*Townsendia incana* Nutt.

*Townsendia* (2)



8966 - May 5, 1961. Rocky  
slopes at foot of cliffs in  
Coch Canyon. Elevation is  
8430. Shrub about 1 m. tall.  
Corolla-tube purplish-pink,  
the lobes paler, nearly white.

*Symphoricarpos longifolia* Gray

*Symphoricarpos*

(6)

8967 May 5, 1961.

Cliff crevices and gravelly slopes  
in Arch Canyon, - otherwise  
as 8963. Flowers yellow.

*Lesquerella rectipes* Woot. +  
Standl.

*Lesquerella* (4)

8968 - May 5, 1961. Cliff  
crevices near the mouth of  
Arch Canyon, just above  
where it opens into Comb Wash,  
18 miles southwest of Blanding,  
San Juan Co., Utah. Twp. 37S.,  
R. 20E., S. 25. Elevation 5000 ft.  
Plants now mostly prostrate.  
Rad deeply sulcate along the  
lower suture.

*Astragalus monumentalis* Barneby

det R. C. Barneby

*Astragalus* (2)

8967 - May 5, 1961. Same  
place as 8968. Heads yellow.  
Keeps mostly about 13, some-  
times only 8.

*Hymenocys leptoclada* (Gray)

*Hymenocys*

(14)



0970-May 8, 1961 In gravelly  
soil (the pebbles water-worn)  
atop low ridge on U.S. highway  
160.17 miles northwest of  
Moab, Grand Co., Utah.  
Twp. 24S., R. 20E., S. 8. Elevation  
4600 feet. Heads rather  
light yellow.

east of Bartlett Wash

*Enceliopsis nutans* (Eastw.)  
A. Nels.

*Enceliopsis cf. nutans* (3) ✓

8 - May 8, 1961

Open gravelly slopes  
associated with the Morrison  
Formation (a pale  
greenish, seleniferous shale)  
just south of Bartlett  
Wash, 16 miles northwest  
of Moab, Grand Co., Utah.  
Twp. 24 S, R. 20 E, S. 16.

Elevation 4500 feet. Sub-  
shrubs with a coarse, woody  
taproot, the persistent  
woody aerial stems about  
5-15 cm. high, the annual  
flowering branches much  
taller. Pappus white to pale  
lavender

*Machaeranthera venusta*  
(Jones) Cronq. & Keck

*Machaeranthera venusta* (Jones) Cronq. & Keck

8972 - May 8, 1961

Same place as 8971.  
Bracts scarlet to  
almost vermilion.

*Castilleja chromosa* A. Nels.  
Duppl. det. Marion O'Conley

*Castilleja*

(8)

(V)

8973- May 9, 1961. Stony  
soil with ~~some~~ <sup>crystalline</sup> rocks: hillside  
in the Colorado River Canyon  
a little below Salt Wash,  
~~the~~ northeast of Hosh,  
Grand Co., Utah, Twp. 24 S.,  
R. 22 E., S. 33. Elevation 4500  
ft. Not seen on the prevailing  
sandstone of the area.

Stems clustered and taproot,  
widely ascending but not quite  
prostrate, the flowering  
branches more assurgent. Corolla  
pink-purple, the banner with a  
large central pale spot. Pods  
more or less arcuate, mottled,  
broadly reniform obcordate  
in section, the upper side  
anticlinally ridged, the lower  
side broadly sulcate, neither  
suture evidently intruded.  
Growing with # 8974.



*A. lentiginos* var. *psglays*,  
but  
sharply distinct, without  
evident hybrids.

*Astragalus amphioxys* Gray  
var. *amphioxys* ~~≠~~

def. R. C. Barneby

*Astragalus* (multicaulis?)

(35)

8974 - May 9, 1961.  
Same place as 8973. Stems  
clustered on a taproot,  
loosely ascending. Leaves  
somewhat glaucous. Flowers  
lavender. Pods strongly  
arcuate, broadly and shallowly  
sulcate on the lower side,  
the lower suture deeply  
introduced but not attached  
to the opposite wall.  
Growing with # 8973,  
*A. amphioxys*, but  
remaining sharply distinct,  
without evident hybrids.

*Astragalus lentiginosus* Dougl.  
var. *palauensis* (Jones) Jones

det. R. C. Barneby

*Astragalus* (Trim.) (10)

8975. May 9, 1961

Same place as 8973. Rosettes  
1 or 2 on the root crown,  
the plant not caespitose.  
Petals white, turning pink  
when wilting

*Oenothera caespitosa* Nutt.  
~~var. aff.~~ var. *jonesii* Munz

*Oenothera aff. caespitosa*

8976 - May 9, 1961  
Lamplacas 8973

*Erigeron pumilus* Nutt.  
ssp. *concinoides* Cronq.  
var. *subglaber* Cronq.

*Erigeron pumilus* ssp. *concinoides*

8977 - May 9, 1961-

Barren rocky slopes in canyon  
overlooking the Colorado

River, just below Salt Wash,  
~~just~~ northeast of Moab,

Grand Co., Utah. Twp. 24S.,

R. 22E., S. 33. Elevation 4500 feet.

Stems clustered and taproot.

Flowers purplish. Pods firm,  
thick-walled, wholly 1-celled,  
slightly flattened on the upper  
surface and with the seed-bearing  
suture obscurely sulcate,  
obtusely rounded on the opposite  
side, the cross-section thus  
somewhat cordate.

*Astragalus procusii* Gray

det. R. C. Barneby

*Astragalus* (1)

8978 - May 9, 1961  
Barren, rocky slopes in the  
canyon of the Colorado River  
just below Salt Wash,  
~~miles~~ northeast of Moab,  
Grand Co., Utah. Twp 24 S.,  
R. 22 E., S. 33. Elevation 4500  
feet. Corolla white, with  
an inconspicuous yellowish eye.

*Cryptantha tenuis* (Eastw.)  
Payson

1033

6030

5556

*Cryptantha (oreocarya)* (4)

8979 - May 10, 1961 - Very  
sandy soil along dry wash  
near the Green River, west  
of Moab, San Juan Co. (a few  
miles below the Grand Co. line),  
Utah. Elevation 4000 feet.  
Flowers pale lavender,  
most white.

*Gilia gunnisoni* T. & G.

*Gilia* (3).



3780 May 10. 15 Same  
place as 3779. Rays bright  
blue-lavender. Plants  
abundant, but just beginning  
to bloom.

*Machaeranthera*  
*tanacetifolia* (HBK.) Nees

*Mach. tanacetifolia* (10) ✓



8981 - May 10, 1961 Same place  
as 8979. Flowers white.

*Euphorbia crassispala*  
(T. & G.) Greene

*Arundo Euphorbia*

(12) ✓

8983 May 10, 1935 Sand  
dune along dry wash near  
the Green River, west of Moab,  
San Juan Co. (a few miles south  
of the Grand Co. line), Utah.  
Elevation 4000 feet. Petals  
white.

*Dithyrea wizlizenii*  
Engelm.

*Dithyrea* (4)



8983 - May 10, 1961 - Sandy soil  
in the canyon of the Green River,  
west of Moab, San Juan Co.  
(a few miles south of the Grand  
Co. line), Utah. Elevation 4000  
feet. Flowers white.

*Eriogonum albo-marginatum*  
(Jones) Jones

*Lloydia*

(8)

8981 - May 10, 1961 Gravelly  
ridge composed mainly  
of water worn stones of  
crystalline rock, quite dif-  
ferent from the surrounding  
sandstones, in the canyon  
of the Green River, west  
of Moab, San Juan Co. (a few  
miles south of the Wayne Co.  
line), Utah. Elevation 4000  
feet. ~~Plants not seen elsewhere~~  
~~in the area~~. Rays rich yellow;  
disk dark red.

*Gaillardia pinnatifida* Torr.

*Gaillardia*

(11)



8985 - May 10, 1961 - same place as  
8984 - Plants not seen on  
the surrounding sandstones.  
Flowers pink. Purple.

*Astragalus amphioxys* Gray

var. *amphioxys*

det. R. C. Barneby

*Astragalus* ~~var.~~ *amphioxys* Gray



8 May 10 - Same  
place as 984. Flowers  
blue-purple.

*Phacelia crenulata* Torr.,  
sens. lat. (*P. corrugata* G. Nels.)

ex *Phacelia* - (4) ✓

8987- May 10, 1961. Same place  
as 8984. Flowers closed  
in the mid-day sun, opening  
overnight in the vasculum.  
(See end of book for additional  
data for this number.)

*Allionia* (*Wedeliellia*) *incarnata*  
L.

*Nyctag.?*

✓  
(6)

8983 May 10. 1961

Same place as 8984.

Flowers very pale lavender,  
almost white.

*Gilia sinuata* Dougl., sens. lat.  
(the *G. inconspicua* phase)

*Gilia aff. sinuata*

(3)





8989 - May 10, 1961 - Same

place as 8984. Branches  
widely spreading, slightly  
ascending, not prostrate.  
Corolla minute, white.

*Gilia polycladon* Torr.

Spreading *Gilia* 5



8983 - May 12, 1965 - Same  
place as 8984. Not seen on  
the surrounding sandstones. r

*Mentzelia pterosperma*  
Eastw. e

*Mentzelia*

(6)



8991 - May 13, 1961 - Bottoms

along the Green River, west  
of Moab, San Juan Co. (a few  
miles south of the Grand Co.  
line), Utah. Elevation  
about 4000 feet.

Crushed, shaggy-barked trees  
about 10 or 12 m. tall, the  
trunk 1-2 (3) dm. thick.

Leaves green on both sides.  
Twigs gray or yellowish-gray.

*Salix nigra* L. Marsh.

var. *venulosa* (Anderss.) Bebb  
(= *S. gooddingii*)

Growing with *S. amygdaloides*  
(#8992), and partly swamped  
by hybridization. Note high  
proportion of aborted capsules.

6992 - May 12, 1961

Battens along the Green River,  
west of Moab, San Juan Co.  
(a few miles south of the Grand  
Co. line), Utah Elevation  
about 4000 feet. Crooked,  
shaggy-barked trees about  
10 or 12 m. tall, the trunk  
1-2 (3) dm. thick. Leaves  
glaucous beneath. Twigs  
gray or yellowish-gray.

*Salix amygdaloides* Anders.

Growing with *S. nigra*  
var. *venulosa* (*S. gooddingii*), #  
8991, and tending to swamp  
out the latter by hybridization.

Willow to ... ✓

8993 - May 10, 1961 - Rocky  
sandstone slope above the  
east bank of the Green River,  
a little below Hell Herring  
Canyon, west of Moab,  
Grand Co. (near the San Juan Co.  
line), Uta. Elevation 4000 feet.  
Plant with the characteristic  
odor of organic selenium. Stems  
clustered in a caudex, loosely  
erect-ascending; leaves mainly  
glaucous; flowers lavender;  
ped thick-walled, broadly sub-  
cordate in cross-section, only  
slightly sulcate along the  
upper suture, neither sulcate  
internode.

*Astragalus parvifolius* Gray  
Det. R. C. Barneby

*Astragalus* 41 - same - 1961

May 2, 1961 Rocky  
sandstone slope above the  
east bank of Green River, a  
— 6 below Hole Roaring  
Canyon, west of Moab,  
Grand Co. (near the San Juan  
Co. line), Utah. Elevation  
4000 feet. Subshrub from a  
woody taproot, the stems  
woody and persistent only  
for about 5-10 (30) cm. above  
the base; rays lavender. Plant  
sweetly aromatic.

Soil ~~probably~~ seleniferous,  
as shown by the presence of an  
*Astragalus* (*A. preussii*)  
with the characteristic odor  
of organic selenium.

*Machaeranthera tortifolia* (T. & G.)  
Cronq. + Keck

var. *epilis* Cronq.

1165

(1 Holotype)

(13 Isotype)

*Machaeranthera tortifolia*

8995 May 12, 1961. Sandy  
soil in open piñon-juniper  
woodland at low summit  
along highway 13 miles south  
of Moab, San Juan Co., Utah.  
Twp. 27S, R. 23E., S. 30.  
Elevation 5600 feet.  
Flowers yellow.

*Physaria australis* (Payson)  
Rollins

*Physaria*

(6)

6-12, 1961 - Same  
place as 8995. Herbage glaucous.  
Corolla a characteristic shade of  
bright red, diverging from  
spectrum red in the direction  
of vermilion. Stems few or  
solitary on a caudex.

*Penstemon utahensis* Eastw.

red *Penstemon*. (4)



8997. May 12, 1961 - same place  
as 8995. Stems numerous on  
a taproot and branching  
caudex. Flowers bright  
pink-purple. Pods drooping.

~~Oct.~~

*Astragalus coltoni*, Jones  
var. *moabensis* Jones

det. R. C. Barneby

det. Jones

(35)

coltoni

8 - May 12, 1961

Same place as 8995. Corolla  
bright lavender-pink. Only  
one plant seen

*Bursera mollattii* Eastw.

Pink *Bursera*

(1)



8999 - May 12, 1961

Same place as 8995. Corolla  
blue-purple. Only a few  
plants seen.

*Penstemon moffattii* Eastw.

Like *penstemon* - (2)



9000 - May 12, 1961

Same place as 8995.

Plants spreading below ground.

Corolla pale lavender, pink  
to almost white.

*Phlox longifolia* Nutt.  
sens. lat.

*Phlox longifolia* (5) ✓

9001 - May 12, 1961

Same place as 8995. Stems  
few or solitary. Corolla white,  
usually with a yellow eye  
consisting mainly of the farnices,  
but varying to wholly white,  
even on the same plant.

Farnices prominent, erect;  
corolla lobes mostly reflexed.

*Cryptantha flavoculata*  
(A. Nels.) Payson

9002 - May 12, 1961

Rocky (sandstone) slopes  
in open piñon - juniper  
woodland at low summit  
along the highway 13 miles  
south of Mesquite, San Juan Co.,  
Utah. Twp. 27S., R. 23E.,  
S. 30. Elevation 5700 feet.  
Plants only loosely matted,  
with ascending or suberect  
short stems, not pulvinate.  
Corolla pale pink - lavender  
to nearly white.

*Phlox hoodii* Rich.

*Phlox* - off *hoodii* (3) - ✓

9003 - May 12, 1961 - Sandy soil  
in open pinon-juniper woodland +  
low summit along highway 13 miles  
south of Hatch, San Juan Co., Utah  
Twp. 27S, R. 23E., S 30. Elev. 5600 ft.  
Banner lavender; wings purple.  
Pod wholly 1-celled, ~~neither~~  
~~suture intruded~~, more or  
less rounded. Triangular in  
cross-section, neither suture  
intruded.

*Astragalus desperatus* Jones

det. R. C. Barneby

*Astragalus* (4)

9224 - May 12, 1961

Sandy soil in open pinon-juniper  
woodland at low summit  
along highway 13 miles south  
of Hatch, San Juan Co., Utah.  
Twp. 27S., R. 23E., S. 30. Elevation  
5600 feet. Flowers bright  
pink-purple, the banner ~~with~~  
with a paler central spot.

*Astragalus amphioxys* Gray  
var. *vespertinus* (Sheld.) Jones

det. R. C. Barneby

*Lepidochloa* (7) ✓



37517.9 at summit

648.0 at Tolia.

355 at ~~summit~~ Pedra 6"

654.9 at summit (old)

661.7 at Montic Clo

6943 at Cy. por. lines

7000 at Comb Wash

133. Line 13 - you mean

"exactly information"

or almost exactly information

? determining the statement

has no representative here.

P. 134. Line 7. "other" "the middle"

P. 139 Q. 9. 8500 ft

P. 142 - Line 5. "face"

acrossing ridge.

P. 145 - Western

"Western mesa" for "Western"

P. 146 - East line "have for 'no"

P. 146 East line Any geographic

data with this type?

P. 153 - East line. by

"direct" "at your own" "information"

an "element"?

P. 157. Again "the 4 to 5"

P. 160 - Line 15. b. possible?

is that the way you mean. I don't

mean "possible" has any other sense? Wrong?

133. line 13 - you mean  
"exactly intermediate"  
or "almost exactly intermediate"  
? Or however the statement  
has no significance here.

P. 134. line 7: "other" for "another"  
P. 139 line 9. 8500 "feet"  
P. 142 - line 5: "these"  
as compared with "these".

P. 145 - bottom  
"medium media" for "medium medium"

P. 146 - last line "have" for "has"

P. 148 - last line Any geographic  
data with this type?

P. 153 - last line - by  
"direct" do you mean "nomenclature"  
or "taxonomy"?

P. 157. Again "check in table"

P. 160 - lines 18. to. possible?

What do you mean. is it possible  
more, possible than anything else. May 19?

p. 76. H. 2. outlying, why

should and "agent" of "agent"?

p. 81. H. 1, last sentence.

Yet it is possible that

other species would form

also possible.

p. 82. H. 13 - "river" for "ma"

p. 83. H. 2. H. 5 "or" for

p. 84. H. 3. H. 1-2 "contains"

for "is composed of"?

p. 88. H. 1 "or" for "or"

p. 88. H. 2. H. 3.

should this be "unpublished"?

Just a little

p. 92. H. 7. "or" for "is"

p. 95. H. 1. "agent" for "normal"?

p. 101. H. 4 from last sentence

misplaced

p. 102-4. 2 H. 2-3 - incomplete

p. 103. H. 2-3. change, "there"

in sentence "into" changed

understand?

p. 76. H. 2. sentence one, why  
should one "expect" a difference here?

p. 81. H. 1, last sentence.

Let it be provided that  
other species would prove  
less variable.

p. 82. line 13 - "were" for "was"

p. 83. H. 2. line 5 "are" for "is"

p. 84. H. 3. lines 1-2 "contains"  
for "is composed of"?

p. 88. line 1 "is" for "are"

p. 88. 19. 2. line 3.

should this be "nonaperturate"?

first a question

p. 92. line 7. "are" for "is"

p. 95. lines 1-4 "typical" for "normal"?

p. 101. line 4 from base. analogous  
misspelled

p. 102. 4/2. line 2-3 - incomplete sentence

p. 103. lines 2-3 - change "there  
in sentence" into "designated"  
underscores.

Будем считать, что  $\alpha$  и  $\beta$  —

P. 45 - Auntie - 2 - does not hang

"Licht" "Licht"

P. 37 - 2nd 4th from bottom

change in pressure is in order.

polyphagous? if not, name

250-50 shows the Japanese being

Attack with the idea that there is

p. 32 - Does the author mean to be

1-28 92. Line 2-3 - *Spizella monticola*?

1978-line 1 - Phylum - macroscopic

~~very large~~ 1

Aspirin should be administered.

pos. 41.3, 41.4, 8 - 1.4.1949

p 03 72 - final - attached memo.

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[illegible]

... ..

And that is the reason.

p. 15 - Kant's theory of morality

more and more (10 more 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040 1041 1042 1043 1044 1045 1

p. 15 - Fl. 3. line 2, "shows" for "show"

p. 15 - last line. Barely misspelled  
and does the author  
wish to express any  
opinion here?

p. 22 - 1. line. phylum misspelled

p. 23 - 42 - line 10 - discrete misspelled

p. 25 - Fl. 3 - lines 4, 8 - elsewhere  
acromatic should be achromatic?

1. ~~Structure~~

p. 28 - line 1 - phylum misspelled

p. 28 - Fl. 2. lines 2-3 - Spirigga misspelled?

p. 32 - Does the author wish to be  
stuck with the idea that there is  
a 50-50 chance of the Cyperaceae being  
polyphyletic? If not, some  
change in phraseology is in order.

p. 37 - line 4 from bottom

"exist" for "exists"

p. 45 - sentence 2 - does not hang  
together grammatically.

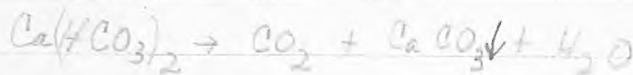
the data for #8987.

Flowers in groups of 3, 2 or flower  
subtended by a sepal like bract,  
and the whole group simulating  
a single flower. Perianth  
corolla, bright pink-purple,  
gamophyllous, very irregular,  
4-lobed, the innermost lobes very  
short, forming a vertical upper  
lip, the other 3 well developed,  
joined into a spreading, 3-lobed  
lower lip, each lobe notched  
at the tip. Stamens 4, style  
1, with a copulate stigma.



Extra data for #8987.

Flowers in groups of 3, each flower subtended by a sepal-like bract, and the whole group simulating a single flower. Perianth coralloid, bright pink-purple, gamophyllous, very irregular, 4-lobed, the innermost lobe very short, forming a vestigial upper lip, the other 3 well developed, joined into a spreading, 3-lobed lower lip, <sup>with</sup> each lobe notched at the tips. Stamens 4. Style 1, with a capitate stigma.



467.0 at junction Road Horse - Horse Thief

482.1 at bottom of canyon

487.5 at turn around

501.0 at next jet

512.5 at next turn around

548 at gravel ridge

599.8 at Willans

501.7 at Canyon jet -

505.3 at turn around

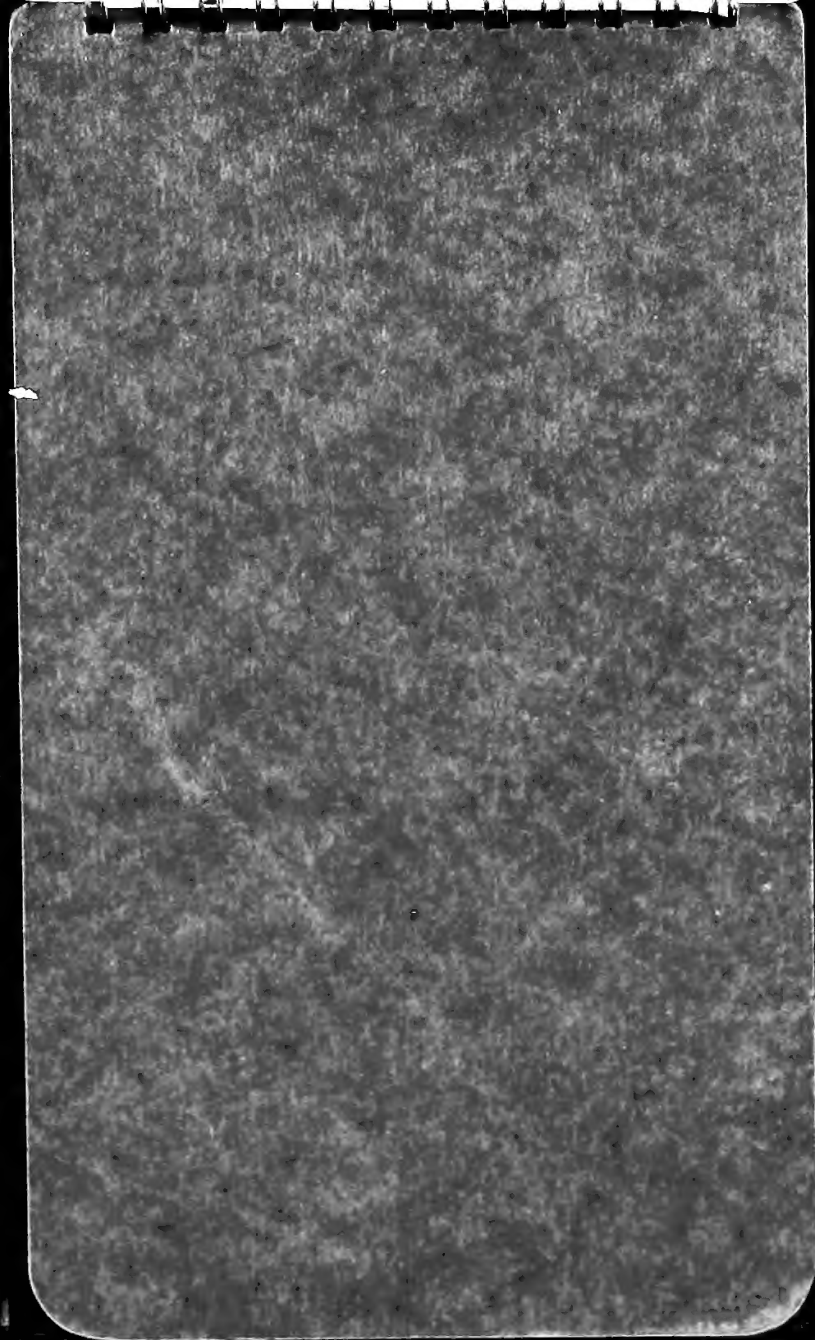
534.2 at jet on top -

34.5 at camp

44.7 at jet on top

57.3 at highway

75.1 at road



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